

A34920-PCT-USA (072667.0179)  
PATENT

AMENDMENTS TO THE CLAIMS:

The listing of claims provided below will replace all prior versions and listings of claims in the above-captioned application:

LISTING OF CLAIMS:

- 1-22. (Canceled)
23. (Currently amended) An isolated nucleic acid comprising a first nucleic acid ~~having at least 80% homology to a reference nucleotide sequence wherein the reference sequence is~~ wherein said first nucleic acid selectively hybridizes under stringent hybridization conditions to a second nucleic acid having a sequence selected from the group consisting of nucleotides 1-695 of SEQ ID NO:1, SEQ ID NO:1, and SEQ ID NO:2, and the complements thereof wherein said first nucleic acid encodes a protein essential for post-transcriptional inactivation, or encodes a portion of said protein.
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Currently amended) The isolated nucleic acid of claim 23 wherein said ~~reference sequence is~~ second nucleic acid has the sequence of nucleotides 1-695 of SEQ ID NO:1.

A34920-PCT-USA (072667.0179)  
PATENT

29. (Currently amended) The isolated nucleic acid of claim 23 wherein said ~~reference sequence is~~ second nucleic acid has a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.
30. (Canceled)
31. (Previously presented) An isolated nucleic acid comprising a nucleotide sequence having nucleotides 1-695 of SEQ ID NO:1.
32. (Previously presented) An isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.
33. (Previously presented) The isolated nucleic acid of claim 32 wherein said nucleotide sequence is SEQ ID NO:1.
34. (Previously presented) The isolated nucleic acid of claim 32 wherein said nucleotide sequence is SEQ ID NO:2.
35. (Previously presented) The isolated nucleic acid of claim 29 wherein said nucleic acid restores an *sgs3* mutant of *Arabidopsis thaliana*.
36. (Withdrawn) An isolated polypeptide comprising an amino acid sequence having at least 80% homology to SEQ ID NO:3.
37. (Withdrawn) The isolated polypeptide of claim 36 wherein said amino acid sequence is at least 90% homologous to SEQ ID NO:3.

A34920-PCT-USA (072667.0179)  
PATENT

38. (Withdrawn) The isolated polypeptide of claim 37 wherein said amino acid sequence is at least 95% homologous to SEQ ID NO:3.
39. (Withdrawn) The isolated polypeptide of claim 38 wherein said amino acid sequence is at least 98% homologous to SEQ ID NO:3.
40. (Withdrawn) The isolated polypeptide of claim 39 wherein said amino acid sequence is at least 99% homologous to SEQ ID NO:3.
41. (Withdrawn) The isolated polypeptide of claim 36 wherein said polypeptide restores an *sgs3* mutant or *Arabidopsis thaliana*.
42. (Withdrawn) An isolated polypeptide comprising an amino acid sequence of SEQ ID NO:3.
43. (Withdrawn) An isolated polypeptide comprising a fragment of a polypeptide having an amino acid sequence of SEQ ID NO:3 wherein said fragment has biological activity in a plant or plant cell.
44. (Currently amended) An expression cassette comprising:  
a plant promoter;  
a nucleic acid ~~comprising a nucleotide sequence that is at least 80% homologous that~~  
selectively hybridizes under stringent hybridization conditions to SEQ ID NO:2  
and that encodes a protein essential for post-transcriptional inactivation, or  
encodes a portion of said protein; and

A34920-PCT-USA (072667.0179)  
PATENT

a plant terminator,

wherein said plant promoter is operably linked to said nucleic acid, and wherein said terminator is operably linked to said nucleic acid.

45. (Currently amended) An expression cassette comprising:

a plant promoter;

a nucleic acid comprising a nucleotide sequence that ~~is at least 80% homologous~~  
selectively hybridizes under stringent hybridization conditions to the complement  
of a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and  
SEQ ID NO:2; and

a plant terminator,

wherein said plant promoter is operably linked to said nucleic acid, and wherein said terminator is operably linked to said nucleic acid.

46. (Canceled)

47. (Currently amended) An expression vector or transformation vector comprising a nucleic acid of claim 23, 28, or 29 or an expression cassette of claim 44, or 45, or 46.

48. (Currently amended) A process for transforming a plant, yeast, fungal or bacterial host organism comprising:

- i. the contacting said plant, yeast, fungal or bacterial host organism with either a nucleic acid of claim 23, 28, or 29 or an expression cassette of claim 44, or 45, or

A34920-PCT-USA (072667.0179)  
PATENT

46 under conditions that permit the internalization of said nucleic acid or said expression cassette into the host organism; and

ii. selecting the host organism transformed with said nucleic acid or said expression cassette.

49. (Currently amended) A process for expressing a heterologous gene in a plant, yeast, fungal or bacterial host organism comprising:

i. contacting a plant, yeast, fungal or bacterial host organism, comprising a heterologous gene, with an expression cassette comprising a plant promoter; a nucleic acid comprising a nucleotide sequence that is at least 80% homologous selectively hybridizes under stringent hybridization conditions to the complement of a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2; and a plant terminator;

ii. selecting the host organism transformed with said expression cassette; and

iii. culturing the selected host organism under conditions that permit the expression of said nucleotide sequence contained within said expression cassette.

50. (Withdrawn) A process for expressing a heterologous gene in a host organism comprising contacting a host organism which comprises a heterologous gene, with a polypeptide comprising an amino acid sequence that is at least 80% homologous to SEQ ID NO:3.

A34920-PCT-USA (072667.0179)  
PATENT

51. (Currently amended) A transformed plant, yeast, fungal or bacterial host organism comprising at least one nucleic acid of claim 23, 28, or 29 or an expression cassette of claim 44, or 45, or 46.
52. (Currently amended) An isolated nucleic acid that selectively hybridizes under stringent hybridization conditions to a nucleic acid having a nucleotide sequence selected from the group consisting of the complement of nucleotides 1-695 of SEQ ID NO:1, the complement of SEQ ID NO:1, and the complement of SEQ ID NO:2, ~~and the complements thereof.~~
53. (New) An isolated nucleic acid comprising a nucleotide sequence having at least 80% homology to a reference nucleotide sequence wherein said reference sequence is selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.